ensure that all active robots 200 are receiving electrical power. Likewise, the controller 114 may issue commands to the switching unit 136 to switch off the alternating current to all primary coils 122 that are not near at least one robot 200.

In The Claims

Please replace claims 1, 17 and 21 as shown below. A marked up version of the amended claims is attached to this Amendment.

1. (Amended) An automated library system having a plurality of data cartridges, the system comprising:

a plurality of storage cells to store the plurality of data cartridges;

at least one rail disposed adjacent to the plurality of storage cells;

at least one primary coil disposed proximate to the at least one rail;

a power supply connected to the at least one primary coil to produce an alternating current in the at least one primary coil;

at least one robot disposed on the at least one rail, the at least one robot being operative to insert and remove the plurality of data cartridges at least one at a time from the plurality of storage cells; and

a secondary coil disposed on each of the at least one robots respectively and positioned to inductively couple at least a portion of the alternating current in the at least one primary coil to the at least one robot; wherein,

the at least one robot comprises a drive mechanism powered through the secondary coil and configured to move the robot about within the automated library system.

17. (Amended) A method of operating an automated library system having a plurality of data cartridges, wherein the automated library system has at least one robot operative to move adjacent to at least one primary coil, the method comprising:

providing an alternating current in the at least one primary coil;

inductively coupling at least a portion of the alternating current in the at least one primary coil into the at least one robot to produce a secondary alternating current;

converting the secondary alternating current into a mechanical movement of the at least one robot; and

directing the mechanical movement of the at least one robot to manipulate the plurality of data cartridges at least one at a time and to move the robot about within the automated library system, using a drive mechanism on the robot.

21. (Amended) The method of claim 17 further comprising:

providing a battery on each of the at least one robots to provide a direct current; and

wherein the step of converting the secondary alternating current into the mechanical movement comprises:

rectifying the secondary alternating current to produce the direct current; and

converting the direct current into the mechanical movement to manipulate the plurality of data cartridges and move the robot.